

CS100J 25 September 2003: Constructors

We alluded to this topic several times in the past month. Now we make it all clear. Read Section 3.1.3, 4.1.3. This topic will not be covered in detail on Prelim I. PRELIM IN URIS AUD.

AEW is holding a review session on Sunday afternoon(?)

**If you got less than 10/10 on Quiz 1,
come up and get your graded quiz.**

Oxymoron: a combination for epigrammatic effect of contradictory or incongruous words (as *cruel kindness*, *laborious idleness*)

airline food

military intelligence

Microsoft Works

sanitary landfill

religious tolerance

State worker

peace force

computer security

tight slacks

business ethics

Constructor

A method with two properties:

- (1) its name is the same as the name of the class in which it appears.
- (2) it has neither **void** nor a return-type in its header.

Purpose of a constructor:

to initialize (some of) the fields of a newly created manilla folder

```
public class Time100J {  
    /** Class invariant: time is a time in seconds on a day in  
        time zone. display12Hr has the meaning  
        "the time should be viewed as a 12-hour clock". */  
    private int time= 0;  
    private String zone= "GMT";  
    private boolean display12Hr= false;  
  
    /** Constructor: an instance with time 0 GMT and a  
        24-hour clock */  
    public Time100J() {}  
}
```

```
Time100J t= new Time100J();
```

1. create a new folder of class Time100J.
2. execute the call Time100J().
3. yield as value the name of the new folder

**evaluation of
the new
expression**

```

public class Time100J {
    /** Class invariant: time is a time in seconds on a day in
        time zone. display12Hr has the meaning
        "the time should be viewed as a 12-hour clock". */
    private int time= 0;
    private String zone= "GMT";
    private boolean display12Hr= false;

    /** Constructor: an instance with time s seconds, GMT,
        and a 24-hour clock */
    public Time100J(int s) {
        time= s;
    }
    Time100J t= new Time100J();
    /** Constructor: an instance with time 0, GMT, 24-hr clock
    public Time100J() {}
    }

```